



UNITED STATES PATENT AND TRADEMARK OFFICE

fw

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,882	11/20/2003	Christopher J. Cookson	3053-071	1477
22440	7590	02/16/2007	EXAMINER	
GOTTLIEB RACKMAN & REISMAN PC			DANIELSEN, NATHAN ANDREW	
270 MADISON AVENUE			ART UNIT	PAPER NUMBER
8TH FLOOR			2627	
NEW YORK, NY 100160601				
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE		DELIVERY MODE	
3 MONTHS	02/16/2007		PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)
	10/718,882	COOKSON ET AL.
	Examiner	Art Unit
	Nathan Danielsen	2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 20 November 2003.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1,2,5,8-12,14 and 17-25 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1,2,5,8-12,14 and 17-25 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 27 November 2006 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2627

DETAILED ACTION

1. Claims 1, 2, 5, 8-12, 14, and 17-25 are pending. Claims 3, 4, 6, 7, 13, 15, and 16 were canceled and 22-25 were added in Applicant's amendment filed 27 November 2006.

Claim Objections

2. Claim 22 is objected to because the phrase "and the reading data" should be changed to --and then reading data--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 11 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The combination of limitations "then reading data in a normal sequence from the second side without turning said disc over and without stopping its rotation in a pre-selected direction" (claim 10) and "rotating the disc in a second direction to read data from a second side using a second laser" (claim 11) lacks antecedent basis in the disclosure as originally filed and is therefore new matter.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1, 2, 5, 8-12, 14, and 17-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 2627

Claims 1, 10, and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite because it is unclear exactly what is meant by "reading data ... in a normal sequence". Claim 1 is further rejected as being indefinite because the limitation "each said first side" lacks antecedent basis as there is only one first side claimed. Claim 11 is rejected as being indefinite because it is unclear how data can be read from the second side of the disc by simultaneously not stopping the disc's rotation in one direction and rotating the same disc in a second direction, as required by claim 11's dependency on claim 10. For purposes of examination, claim 11 is interpreted to claim where the disc is rotating in the same direction irrespective of the side being irradiated.

Claims 24 and 25 recite the limitation "said zone". There is insufficient antecedent basis for this limitation in the claims.

Claims 2-9, 12, 14, and 18-23 are rejected as being dependent on an indefinite claim.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 10-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamauchi et al (JP Patent Application Publication 11-007669; hereinafter Yamauchi).

Regarding claims 10 and 11, the Yamauchi discloses a method of playing a double-sided optical disc, comprising:

reading data from a first side (¶ 35); and

then reading data in a normal sequence from the second side without turning said disc over and without stopping its rotation in a pre-selected direction (¶ 32).

Regarding claim 12, the Yamauchi discloses where the method of claim 10 further comprises:

reading data from a first side with a first laser head (¶ 32 and figure 1); and

Art Unit: 2627

reading data from a second side with a second laser head (¶ 32 and figure 1).

Regarding claim 13, Yamauchi discloses where the method of claim 12 further comprises rotating said disc in a first direction while said data is read from said first side and rotating said disc in said first direction while said data is read from said second side (¶ 32).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1 and 3-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamauchi, in view of Hisakado et al (US Patent 5,406,534; hereinafter Hisakado).

Regarding claim 1, Yamauchi discloses a method of reading from data on an optical disc having two sides comprising:

providing a disc with data disposed on tracks on respective sides (¶ 32);
each side having a center and a peripheral edge (inherent in optical discs);
rotating the disc (inherent for not damaging the disc recording/reproducing layers); and
reading the data from either side using at least one laser without stopping the rotation of the disc
including reading data from the center of said first side to the edge of said first side
immediately followed by reading data from the edge of said second side toward the
center of said second side in a normal sequence (¶s 29 and 32; where if the pickups can
be controlled independently and on the basis of track addresses, they can be used to
read/write sequentially from one side to another in whatever direction is required by the
orientation of the tracks).

However, Yamauchi fails to disclose where the tracks are spiral in shape and are oriented differently depending on the side of the disc.

Art Unit: 2627

In the same field of endeavor, Hisakado discloses where said tracks are disposed along spirals, with the track on a first side being disposed along a first spiral oriented in a first direction and the track on a second side being disposed along a second spiral oriented in a direction that is opposite to said first direction, as viewed from the respective sides (figure 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the disc of Hisakado in the apparatus of Yamauchi, for the purpose of simultaneously recording data on two sides of a disc (col. 2, lines 23-26).

Regarding claims 5, Yamauchi, in view of Hisakado, discloses everything claimed, as applied to claims 1 and 10. Additionally, Yamauchi discloses where the method further comprises:

providing two laser heads, each laser head being disposed on along a respective side of the disc
(figure 3); and

reading data from one side with one head and from the other side with the other head (¶ 32).

Regarding claim 8, Yamauchi, in view of Hisakado, discloses everything claimed, as applied to claim 1. Additionally, Yamauchi discloses where the method further comprises reading data with a single head (¶ 35).

11. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamauchi, in view of Hisakado, and further in view of Ito et al (US Patent 5,881,032; hereinafter Ito).

Regarding claim 2, Yamauchi, in view of Hisakado, discloses everything claimed, as applied to claim 1. However, Yamauchi, in view of Hisakado, fails to disclose where the disc has more than one data layer per side.

In the same field of endeavor, Ito discloses where the disc is provided with at least two data layer on one side (figures 3 and 4); further comprising reading the layers of said one side without switching over to the other side between layers (figures 1D and 2 indicate how the apparatus of figure 5 records on and reproduces from the multilayer discs of figures 3 and 4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have read from multiple layers of a multilayer disc without switching to the other side to do

Art Unit: 2627

so, as taught by Ito, for the purpose of enabling smooth, contiguous reproduction from one side to the other side using only one optical pickup and not turning the disc over (col. 4, lines 19-25 and 40-46 and figure 1).

12. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamauchi, in view of Hisakado, and further in view of Winter (US Patent 6,603,714).

Regarding claims 9 and 14-16, Yamauchi, in view of Hisakado, discloses everything claimed, as applied to claims 8 and 10. However, Yamauchi, in view of Hisakado, fails to disclose where the method further comprises switching said head from one side to the other without stopping the disc.

In the same field of endeavor, Winter discloses where the method further comprises switching said head from one side to the other without stopping the disc (col. 4, line 62 through col. 5, line 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have switched said head from one side to the other without stopping the disc, as taught by Winter, for the purpose of avoiding a reproduction interruption (col. 5, lines 1-5).

13. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamauchi, in view of Winter.

Regarding claim 14, Yamauchi discloses everything claimed, as applied to claim 10. However, Yamauchi fails to disclose where the method further comprises switching said head from one side to the other without stopping the disc.

In the same field of endeavor, Winter discloses where the method of further comprises:

- reading data from a first side with a laser head;
- switching said laser head to a second side;
- reading data from said second side with said laser head (all limitations found in col. 4, line 62 through col. 5, line 1).

Art Unit: 2627

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have switched said head from one side to the other without stopping the disc, as taught by Winter, for the purpose of avoiding a reproduction interruption (col. 5, lines 1-5).

14. Claims 17, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamauchi, in view of Ito.

Regarding claim 17, Yamauchi discloses a method of reading data from a disc having a first side with several data layers, and a second side with at least one data layer, said disc having a center and an edge (inherent in optical discs), said method comprising:

reading data from the data layer of said first side in a normal sequence (¶s 29 and 32); and

reading data from said second side without turning said disc over,

wherein the last layer being read on the first side terminates at the edge of the disc and the

second side is read in a normal sequence from the edge toward the center of the disc (¶s

29 and 32; where if the pickups can be controlled independently and on the basis of track

addresses, they can be used to read/write sequentially from one side to another in

whatever direction is required by the orientation of the tracks).

However, Yamauchi fails to disclose where the disc has a first side with several data layers, and a second side with at least one data layer.

In the same field of endeavor, Ito discloses where the disc has a first side with several data layers, and a second side with at least one data layer (figures 1D and 2 indicate how the apparatus of figure 5 records on and reproduces from the multilayer discs of figures 3 and 4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have read from multiple layers of a multilayer disc without turning the disc over, as taught by Ito, for the purpose of enabling smooth contiguous reproduction from one side to the other side using only one optical pickup and not turning the disc over (col. 4, lines 19-25 and 40-46 and figure 1).

Regarding claim 19, Yamauchi, in view of Ito, discloses everything claimed, as applied to claim

17. Additionally, Yamauchi discloses where the method further comprises rotating said disc in a

Art Unit: 2627

predetermined direction as data is read from said first and said second sides (inherent when both layers are recorded/reproduced at the same time).

Regarding claim 20, Yamauchi, in view of Ito, discloses everything claimed, as applied to claim 17. Additionally, Yamauchi discloses where the method further comprises reading data from said first side with a first laser head and reading data from said second side with a second laser head (¶¶s 29 and 32 and figure 1).

15. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamauchi, in view of Ito, and further in view of the AAPA.

Regarding claim 18, Yamauchi, in view of Ito, discloses everything claimed, as applied to claim 17. However, Yamauchi, in view of Ito, fails to disclose where data is read from said first side while said disc is rotating in one direction and data is read on said second side while said disc is rotating in an opposite direction.

In the same field of endeavor, the AAPA discloses where data is read from said first side while said disc is rotating in one direction and data is read on said second side while said disc is rotating in an opposite direction (bottom of page 3 through top of page 4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have rotated the disc in different directions based on the side to be reproduced, as taught by the AAPA, for the purpose of reproducing data from a double-sided disc without having to turn it over (middle of page 3 through top of page 4).

16. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamauchi, in view of Ito, and further in view of Winter.

Regarding claim 21, Yamauchi, in view of Ito, discloses everything claimed, as applied to claim 17. However, Yamauchi, in view of Ito, fails to disclose where the method further comprises reading data from said first side with a first laser, switching said laser to said second side and reading data from said second side with said first laser.

In the same field of endeavor, Winter discloses where the method of further comprises:

- reading data from a first side with a laser head;
- switching said laser head to a second side; and
- reading data from said second side with said laser head (all limitations found in col. 4, line 62 through col. 5, line 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have switched said head from one side to the other without stopping the disc, as taught by Winter, for the purpose of avoiding a reproduction interruption (col. 5, lines 1-5).

17. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamauchi, in view of Hisakado and Ito, and further in view of Yokogawa et al (US Patent 5,608,715; hereinafter Yokogawa).

Regarding claim 22, Yamauchi, in view of Hisakado and Ito, discloses everything claimed, as applied to claim 2. However, Yamauchi, in view of Hisakado, fails to disclose where data is read from said first side by reading data from the edge of said first side to the center of said first side on said first layer and the reading data from said center on said second layer.

In the same field of endeavor, Ito discloses where data is read from one layer in a first radial direction and the next layer in the opposite direction (figures 1-4) for the purpose of providing smooth contiguous playback of data contained on two consecutive layers (col. 4, lines 19-30 and 40-46).

However, Ito fails to disclose where the first radial direction is from outside to inside.

In the same field of endeavor, Yokogawa discloses where the first radial direction is from outside to inside (col. 14, lines 26-34).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the functionality of the apparatus of Yamauchi, as modified by Hisakado and Ito, with the functionality of the apparatus of Yokogawa, for the purpose of making it easier to reestablish focus after a focus jump (col. 14, lines 26-34).

Art Unit: 2627

18. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamauchi, in view of Hisakado, Ito, and Yokogawa, and further in view of Iida et al (US Patent 5,702,792; hereinafter Iida).

Regarding claim 23, Yamauchi, in view of Hisakado, Ito, and Yokogawa, discloses everything claimed, as applied to claim 22. However, Yamauchi, in view of Hisakado, Ito, and Yokogawa, fails to disclose where said second side includes two layers.

In the same field of endeavor, Iida discloses in figure 6 a double-sided multi-layer optical disc.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have made use of the disc of Iida in any and all of the apparatuses of Yamauchi, Hisakado, Ito, and Yokogawa, for the purpose of increasing the storage capacity of an optical disc (col. 1, lines 52-57).

19. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamauchi, in view of Hisakado, and further in view of Gushima et al (US Patent 5,506,825; hereinafter Gushima).

Regarding claim 24, Yamauchi, in view of Hisakado, discloses everything claimed, as applied to claim 1. However, Yamauchi, in view of Hisakado, fails to disclose an optical disc divided into annular zones.

In the same field of endeavor, Gushima discloses an optical disc divided into annular zones (col. 1, lines 13-37).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have made use of the optical discs of Gushima in the apparatuses of Yamauchi and/or Hisakado, for the purpose of increasing the storage capacity of an optical disc (col. 1, lines 13-37).

20. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamauchi, in view of Gushima et al (US Patent 5,506,825; hereinafter Gushima).

Regarding claim 24, Yamauchi discloses everything claimed, as applied to claim 10. However, Yamauchi fails to disclose an optical disc divided into annular zones.

Art Unit: 2627

In the same field of endeavor, Gushima discloses an optical disc divided into annular zones (col. 1, lines 13-37).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have made use of the optical discs of Gushima in the apparatuses of Yamauchi and/or Hisakado, for the purpose of increasing the storage capacity of an optical disc (col. 1, lines 13-37).

Response to Arguments

21. Applicant's arguments filed 27 November 2006 have been fully considered but they are not persuasive.

a. Applicant argues that "Yamauchi is not pertinent to the present invention" because "data is written by melting a small spot on the disk and then applying a magnetic field to magnetize the spot" and "is read using a magnetic pickup" (page 12). The examiner disagrees. Yamauchi clearly discloses where recording data on an optical disc is accomplished by irradiating a magnetically heated spot such that the magnetic polarity of the location is changed. Data can then be reproduced using a change in a reflection factor of light irradiated on the disk (¶s 2 and 3). Further, Yamauchi, in ¶ 35, discloses a device in which information is recorded on both sides on an optical disk utilizing only a laser beam. Therefore, Yamauchi is pertinent to the present invention.

b. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "a disc in which data from one side is interleaved with data from the other side" (page 12)) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

c. Applicant further argues that "it is well known that data is written on magneto-optical discs in concentric circles, not spirals", "adding Hisakado's disclosure would merely result in an unconventional magneto-optical disc, not the laser-readable disc or a method of reading the

Art Unit: 2627

same as defined in the claims", and "the suggested combination fails to teach the sequence described above and incorporated into the claims". The examiner disagrees. Aoki et al (US Patent 4,639,907) clearly shows where data is recorded on a magneto-optical disk in spirally or concentrically formed tracks (col. 2, lines 21-38), which indicates that the combination of Yamauchi and Hisakado does not merely result in an unconventional magneto-optical disc. Additionally, ¶ 29 of Yamauchi suggests where data can be read from both sides at any radial location at any time since the two optical heads can move independently of each other.

d. Applicant further argues that the layers in the disc of Ito "have spirals wound in opposite directions", that "it is obvious to any person skilled in the art that there is no practical way to read such a structure", and "that this reference does not disclose a practical disc and therefore a person skilled in the art would ignore it". The examiner disagrees. Figure 5 shows an apparatus and figures 6A and 6B show methods of reproducing data from the discs shown in figures 1-4 (see col. 11, line 58 through col. 14, line 12 for an explanation of figures 5 and 6), thus causing these discs to be "practical" discs, as is explained in col. 3, lines 19-30.

e. Applicant further argues that because "the amended claims recite that data is read in a normal, rather than a reverse sequence required by Winter, this reference is not relevant". The examiner disagrees. Winter discloses a method of reproducing data which comprises reproducing the data and reversing its sequence so that it can be properly interpreted. This method further comprises, prior to reproducing the data of the second side, switching the head from the first side to the second side, and is therefore still relevant to applicant's claimed invention.

Closing Remarks/Comments

22. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 2627

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Danielsen whose telephone number is (571) 272-4248. The examiner can normally be reached on Monday-Friday, 9:00 AM - 5:00 PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571) 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nathan Danielsen
01/12/2007



WAYNE YOUNG
SUPERVISORY PATENT EXAMINER

